# COMMONWEALTH of VIRGINIA

*Department for the Aging*

Jay W. DeBoer, J.D., Commissioner



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**September 8, 2004**


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Virginia department for the Aging

*COMMONWEALTH of VIRGINIA*
*Department for the Aging*
Jay W. DeBoer, J.D., Commissioner

## MEMORANDUM

**TO:** Executive Directors
Area Agencies on Aging

**FROM:** Tim M. Catherman
Deputy Commissioner, Support Services

**DATE:** September 8, 2004

**SUBJECT:** Virginia Aging and AoA in the News

Below are Virginia Aging or AoA related articles that have occurred since last week's Tuesday E-mailing. These links do not require a paid service; however, some (like the Washington Post, etc.) ask a brief survey or registration. Please note some links are time sensitive and can change daily. Some articles may be editorial. Links are presented 'as is".

If you are aware of articles that I am missing, please e-mail me a link for inclusion next week.

### Virginia AAAs In the News

The Wise House project will provide services for residents through partnerships with Mountain Empire Older Citizens and Stone Mountain Health, McConnell said.
http://www.zwire.com/site/news.cfm?newsid=12812995&BRD=1283&PAG=461&dept_id=158544&rfi=6

The Mountain Laurel Cancer Resource and Support Center, a program of Mountain Empire Older Citizens, Inc. (MEOC), was recently awarded the prestigious HOPE Award.
http://www.healthsystem.virginia.edu/internet/library/admin/news/040515c.cfm

MAKING Sense of Medicare
Richmond.com - Richmond,VA,USA
Since June, Virginia's senior citizens have had the option to sign up ... On Thursday, the capital area's agency on aging will partner with local pharmacists to ...
<http://www.richmond.com/health/output.cfm?ID=3219793&vertical=Health>

### Other

DRAFT audit targets agency
Union Democrat - Sonora,CA,USA
The Area 12 Agency on Aging could have to refund almost $1 million to the ... draft audit further states that agency has an inadequate financial management system ...
<http://www.uniondemocrat.com/news/story.cfm?story_no=15075>

COUNTY cuts aid to senior centers
phillyburbs.com - PA,USA
Bucks County plans to cut financial aid to its 13 senior centers so it ... Charles Kane, director of the Bucks County Area Agency on Aging, said the county would ... <http://www.phillyburbs.com/pb-dyn/news/111-09012004-358599.html>

CLARKE Senior Center celebrates its 30th
Clarke Times Courier - Berryville,VA,USA
... Dodson thanked the town and county for their financial support. ... Also attending were officials from the Shenandoah Area Agency on Aging, including Roberta Lauder ...
<http://www.zwire.com/site/tab3.cfm?newsid=12831785&BRD=2553&PAG=461&dept_id=506078&rfi=6>

*COMMONWEALTH of VIRGINIA*
*Department for the Aging*
Jay W. DeBoer, J.D., Commissioner

## MEMORANDUM

**TO:** AAA Directors

**FROM:** Bill Peterson

**DATE:** September 8, 2004

**SUBJECT:** **Suicide Prevention Plan**

In 2003, the General Assembly passed Senate Joint Resolution 312 requesting the Secretary of Health and Human Resources, in cooperation with the Secretaries of Education and Public Safety, to formulate a comprehensive **Suicide Prevention across the Life Span Plan for the Commonwealth**. The General Assembly directed the Department of Health (VDH) and the Department for the Aging (VDA) to develop the plan, with participation from other state agencies with an interest, responsibility, or role in suicide prevention.

As always, our concern was that we not create an additional unfunded mandate for the aging network. The result is a plan that does not contain specific activities for which AAAs will be held responsible. It does, however, include the aging network in the discussion and, hopefully, development of suicide prevention components as part of their programs. In the long run, the success of this Plan will depend upon the General Assembly's commitment to provide funding for AAAs (and others) to develop specific programming.

A copy of the Plan is attached for your review and comment. The Plan will be submitted to the General Assembly for review during the 2005 session.

Attachment

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# SUICIDE PREVENTION ACROSS THE LIFE SPAN PLAN

# FOR THE COMMONWEALTH OF VIRGINIA

**September 2004**

Submitted to the Center for Injury and Violence Prevention,
Virginia Department of Health by

Cecilia Eykyn Barbosa, MPH, MCRP
Principal, NiCe, LLC
In fulfillment of an agreement with the
Old Dominion University Research Foundation

**COVER LETTER**

## Preface

**Authority**
Senate Joint Resolution 312 (2003) requests the Secretary of Health and Human Resources, in cooperation with the Secretaries of Education and Public Safety, to formulate a comprehensive Suicide Prevention across the Life Span Plan for the Commonwealth.

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# Executive Summary

## Introduction

In 2003, the General Assembly passed Senate Joint Resolution 312 requesting the Secretary of Health and Human Resources, in cooperation with the Secretaries of Education and Public Safety, to formulate a comprehensive Suicide Prevention across the Life Span Plan for the Commonwealth. The General Assembly directed the Department of Health (VDH) and the Department for the Aging (VDA) to develop the plan, with participation from the Departments of Mental Health, Mental Retardation and Substance Abuse Services (DMHMRSAS); Social Services; Education; Juvenile Justice; Criminal Justice Services; State Police; Corrections; and any other state agency with an interest, responsibility, or role in suicide prevention.

The Suicide Prevention across the Lifespan Plan was developed with the input of stakeholders from around the Commonwealth, through research into national and state resources, and with guidance and review by an Interagency Committee. The goals from the National Strategy for Suicide Prevention (National Strategy), developed by the United States Department of Health and Human Services in 2001, were adapted to Virginia and form the basis for the Virginia goals. One of the National Strategy's objectives is to "increase the proportion of States with comprehensive suicide prevention plans that a) coordinate across government agencies, b) involve the private sector; and c) support plan development, implementation , and evaluation in its communities." This plan, with emphasis on the entire lifespan, responds to this objective.

## Epidemiology of Suicidal Behaviors

In 2002, there were 792 suicides in the Commonwealth, or about two suicides per day, for an age-adjusted rate of 10.8 suicides per 100,000 people.[i] It was the eleventh leading cause of death among all Virginians and the third leading cause of death for youth. Twice as many people died from suicide in Virginia as compared to homicides. Suicides occur in all areas of Virginia. The highest rates are in rural areas, primarily in the Southwest and West Piedmont areas. Firearms are the major means chosen by those who die by suicide; suffocation (mostly by hanging) is the second most common method, followed by drugs and gases.[a] For every suicide, there are about 25 suicide attempts; suicide attempts are three times more common in women than in men.[b] In the U.S., about 90 percent of people who completed suicide had a mental illness, including alcohol and/or substance use disorders and some had multiple diagnoses.[c] Therefore, in this country, the problem of suicide is inextricably linked to the issue of mental health and substance abuse.

[i] Age-adjusted rates are standardized to a common population age distribution, in this document, the Year 2000 U.S. population. This allows for comparison among populations in spite of differing age distributions.

The Institute of Medicine, in its landmark report, Reducing Suicide: A National Imperative, summarizes risk factors for suicide succinctly:

> Risk factors associated with suicide include serious mental illness, alcohol and drug abuse, childhood abuse, loss of a loved one, joblessness and loss of economic security, and other cultural and societal influences. Resiliency and coping skills, on the other hand, can reduce the risk of suicide. Social support, including close relationships, is a protective factor.[d]

and

> Converging evidence across disciplines indicates that suicide is related to stress: developmental and adult trauma; cumulative stressors, including multiple morbidities; acute and chronic social and cultural stressors; and capacity to cope with stress. Suicide can be considered an expected outcome of a significant subgroup of mentally ill patients who experience accumulative life stresses, just as cardiac infarction is an expected outcome of untreated high blood cholesterol.[e]

## Effective Strategies

In the field of suicide prevention, a widely used model for grouping strategies is the Universal, Selective, and Indicated prevention model. ***Universal*** strategies are designed to reach all the members of a community or population. ***Selective*** strategies are targeted for the population groups at higher risk for becoming suicidal, for example, those with undiagnosed and untreated mental health conditions and aim at preventing the onset of suicidal behaviors. ***Indicated*** strategies are intended to prevent suicide among those most at risk for suicide and showing early signs of suicide potential, such as people who have attempted suicide.

Integrated programs combine universal, selective and indicated strategies. Program evaluations have indicated the effectiveness of this approach; there is also compelling logic to this strategy. Why increase public awareness without having adequate services and community support to help those most in need? Strengthening mental health services is valuable when coupled with actions that reduce barriers toward utilization of services.

## Summary of Plan

Aims of the Plan:

1. To prevent deaths due to suicide across the lifespan
2. To reduce occurrence of other self-harmful acts
3. To increase recognition of risk factors and improve access to care
4. To promote awareness of suicide and reduce stigma of mental health
5. To promote healthy community development, enhancing interconnectedness, resources, and resilience

### *Leadership Development and Infrastructure*

**Goal 1: Develop broad-based support for suicide prevention**
Objectives:

- Establish state-level oversight and leadership by assigning the Department of Mental Health, Mental Retardation and Substance Abuse Services as the lead agency
- Identify and support strong regional and/or local coalitions
- Identify sustainable and reliable funding for basic suicide prevention functions
- Increase awareness of and support by state and local leaders

**Goal 2: Improve and expand surveillance systems**
Objectives:

- Systematically collect, analyze and disseminate data measures and reports to constitute the Virginia Suicide Prevention Surveillance System
- Increase the number of localities regularly conducting suicide follow-back studies
- Promote and support national efforts to standardize data collection methods

**Goal 3: Promote and support research, including evaluation, on suicide and suicide prevention**
Objective:

- Increase applied research in Virginia on suicide prevention

### *Awareness*

**Goal 4: Develop and implement strategies to reduce the stigma associated with being a consumer of mental health, substance abuse and suicide prevention services.**
Objective:

- Increase the percentage of the population who recognize the importance of disclosing mental health symptoms to family, friends, or health care professionals and obtaining care for these problems

**Goal 5: Promote Awareness that Suicide is a Public Health Problem that is Preventable**
Objective:

- Conduct a public information campaign on the problem of suicide

### *Intervention*

**Goal 6: Develop and implement community-based suicide prevention programs**
Objectives:

- Reduce the suicide rate in those planning districts with high male suicide rates
- Establish effective programs aimed at population groups at high-risk for suicide
- Integrate suicide prevention components in more community programs

**Goal 7: Promote efforts to reduce access to lethal means and methods of self-harm**

Objective:

- Reduce the rate of self-inflicted suicide firearm deaths

**Goal 8: Implement training for recognition of at-risk behavior and delivery of effective treatment**

Objectives:

- Increase the number of trained gatekeepers
- Increase the number of education programs for family members and others in close relationships with those at risk for suicide

**Goal 9: Develop and promote effective clinical and professional practices**

Objectives:

- Increase the proportion of primary care practices with systems to assure accurate diagnosis, effective treatment, and follow-up for suicidal behaviors, depression, substance misuse, and other mental health conditions
- Increase the proportion of specialty mental health and substance abuse treatment centers that have policies, procedures, and evaluation programs designed to assess suicide risk and intervene to reduce suicidal behaviors among their patients
- Increase the proportion of patients with mood disorders who complete a course of treatment or continue maintenance treatment as recommended
- Increase the proportion of patients treated for self-destructive behavior in hospital emergency departments that pursue the proposed mental health follow-up plan
- Increase the proportion of institutional settings that apply guidelines for aftercare treatment programs for individuals exhibiting suicidal behavior

**Goal 10: Increase access to and community linkages with mental health and substance abuse services**

Objectives:

- Increase the proportion of the population with insurance coverage for mental health and substance abuse services
- Expand local mental health services, especially in areas with high suicide rates
- Improve integration and coordination among organizations/agencies including health, mental health, and spiritual

**Goal 11: Improve reporting and portrayals of suicidal behavior, mental illness and substance abuse in the entertainment and news media**

Objective:

- Identify and inform the media of inappropriate portrayal of or reporting on suicides, suicidal attempts, and mental illness

## Introduction

In 2003, the General Assembly passed Senate Joint Resolution 312 requesting the Secretary of Health and Human Resources, in cooperation with the Secretaries of Education and Public Safety, to formulate a comprehensive Suicide Prevention Across the Life Span Plan for the Commonwealth (Appendix A). The General Assembly directed the Department of Health (VDH) and the Department for the Aging (VDA) to develop the plan, with participation from the Departments of Mental Health, Mental Retardation and Substance Abuse Services (DMHMRSAS); Social Services; Education; Juvenile Justice; Criminal Justice Services; State Police; Corrections; and any other state agency with an interest, responsibility, or role in suicide prevention. The General Assembly expected the Plan to:

- Address suicide prevention across the life span;
- Place special emphasis on effective strategies to prevent suicide among adolescent and elderly Virginians and other high-risk populations;
- Integrate applicable goals, objectives and strategies from the National Strategy for Suicide Prevention as well previous planning efforts in Virginia and other states;
- Establish the Commonwealth's public policy regarding the prevention of suicide;
- Identify the lead agency responsible for carrying out that policy;
- Propose the creation of a permanent oversight body to monitor the implementation of the plan;
- Propose initiatives and interventions to effectively implement that policy; and
- Identify the sources and amounts of resources to implement those initiatives and interventions.

The Suicide Prevention Plan was developed with the input of stakeholders from around the Commonwealth, through research into national and state resources, and with guidance and review by an Interagency Committee. The aims of the plan were to:

1. Prevent deaths due to suicide across the lifespan
2. Reduce occurrence of other self-harmful acts
3. Increase recognition of risk factors and improve access to care
4. Promote awareness of suicide and reduce stigma of mental health
5. Promote healthy community development, enhancing interconnectedness, resources, and resilience.

Input was first obtained through the **Third Annual Virginia Suicide Prevention, Intervention and Healing Conference**, held in May 2002. At that conference, approximately 125 individuals from around the Commonwealth participated in regional planning sessions. Participants, who were divided into five groups by Health Planning Region, were asked to identify priorities for each region, using the National Suicide Prevention Strategy and Virginia Youth Suicide Prevention Plan as a basis.

In the fall of 2003, the Virginia Department of Health contracted with Virginia Commonwealth University to hold focus groups to obtain input on critical issues in suicide prevention and recommendations for action. Participants in the focus groups included representatives from law enforcement agencies, public school systems, mental

health agencies, community services boards, health departments, hospitals, nonprofit organizations, a variety of community services agencies, and the Interagency Suicide Prevention Coordinating Committee. In addition, two sessions were held with college and university staff and a faith-based group to gain information on specific training needs.

The goals from the National Strategy for Suicide Prevention, developed by the United States Department of Health and Human Services in 2001, were adapted to Virginia and form the basis for the Virginia goals. The plan also addresses outcome objectives from the national objectives, the Healthy People 2010 Objectives, and the corresponding Virginia Healthy People 2010 Objectives (Appendix F). Healthy People 2010 is the prevention agenda for the nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats.

One particularly valuable resource was the Institute of Medicine's landmark review, Reducing Suicide: A National Imperative, published in 2002.[g] This comprehensive review of the literature and knowledge-base on suicide prevention relied on the analysis of many national experts in the field, both in the medical and social sciences. Additionally, Virginia suicide prevention plans, studies, grant applications, legislation, data, and published literature were resources used for the development of the plan.

## History of Statewide Suicide Prevention Efforts in Virginia

In 1987, in response to the growing problem of suicide among youth, the General Assembly established a Joint Subcommittee to study the causes of suicide among children and youth and to develop strategies to implement effective youth suicide prevention programs. A report was completed in 1988 and was followed in 1989 by a similar report, this time focusing on suicide among the elderly. In 1990, the Department for the Aging presented a Suicide and Substance Abuse Prevention Plan for the Elderly. It was not until 2001 that a Youth Suicide Prevention Plan was prepared by the Virginia Commission on Youth. A key recommendation of this plan was the designation of the Virginia Department of Health as the lead agency for youth suicide prevention. The *Code of Virginia* was modified that same year to reflect the recommendation and the new biennium budget included an appropriation, for each year, of $150,000, to the Departments of Health and Mental Health, Mental Retardation and Substance Abuse Services. Staff was hired at each agency to initiate youth suicide prevention activities: statewide training, development and distribution of materials, and organization of statewide conferences. Major funding, in the form of a grant from the Centers for Disease Control and Prevention, was secured by VDH.

Also in 2001, the National Strategy for Suicide Prevention: Goals and Objectives for Action was released which examined the problems and provided national goals and objectives to prevent suicide across the lifespan. One of its objectives is to "increase the proportion of States with comprehensive suicide prevention plans that a) coordinate

across government agencies, b) involve the private sector; and c) support plan development, implementation , and evaluation in its communities." This plan, with emphasis on the entire lifespan, responds to the national objective.

### Major Suicide Prevention Accomplishments since 1988 in Virginia and Significant National Events

**1988**

- Report by the Joint Committee Studying Youth Suicide Prevention in response to the growing problem of youth suicide.

**1989**

- Report by the Virginia Department for the Aging (VDA) on suicide and substance abuse among the elderly.

**1990**

- Statewide Suicide and Substance Abuse Prevention Plan for the Elderly by the Department for the Aging.

**1994**

- Local child death review teams established in the Piedmont Region, Fairfax County, and Hampton Roads.

**1995**

- Virginia State Child Fatality Review Team was established by the General Assembly. The multidisciplinary review team systematically analyzes, among other fatalities, child suicides to determine if the deaths could be prevented and to make recommendations for education, training, and prevention.

**1999**

- Surgeon General's Call to Action to Prevent Suicide.
- Virginia legislation passed directing the Board of Education, in cooperation with the DMHMRSAS and the VDH, to develop guidelines for licensed school personnel to use in contacting parents or, if conditions warrant, the local or state services agency when they believe a student to be at imminent risk for attempting suicide.
- Suicide Prevention Guidelines written and disseminated to school personnel by the DOE.

**2000**

- Appropriation of $75,000 each to VDH and DMHMRSAS for each year of the 2000-2002 Biennium for activities to be conducted in response to the Youth Suicide Prevention Plan.
- A Study of Suicide in the Commonwealth by the Virginia Department of Health.
- Report on *Suicide Fatalities among Children and Adolescents in Virginia 1994-95,* by the State Child Fatality Team.
- Healthy People 2010, national goals and objectives, by the U.S. Department of Health and Human Services.

**2001**

- National Strategy for Suicide Prevention: Goals and Objectives for Action.
- Youth Suicide Prevention Plan by the Virginia Commission on Youth, with the assistance of the VDH; DMHMRSAS and the Department of Education. The plan recommends, among other items, amending the *Code of Virginia* to designate the Virginia Department of Health as lead agency for youth suicide prevention and increasing funding for both VDH and DMHMRSAS for youth suicide prevention activities.
- Report by the Virginia State Crime Commission on personalized handguns.
- VDH is designated as lead agency for youth suicide prevention in the Commonwealth, by amendment to the *Code of Virginia* §32.1-73.7. VDH is mandated to report annually to the Governor and the General Assembly on its youth suicide prevention activities.
- DMHMRSAS initiated the proclamation of Childhood Depression Awareness Day, declared by the Governor on May 8, 2001.
- Interagency Youth Suicide Prevention Coordinating Committee formed by VDH with representation from DMHMRSAS, DOE, community services boards, and local health departments.

- Virginia Youth Suicide Prevention Advisory Committee established to advise DMHMRSAS on mental health recommendations from the Youth Suicide Prevention Plan.
- Position of Youth Violence Prevention Consultant filled by the Center for Injury and Violence Prevention at VDH.
- Applied Suicide Intervention Skills Training (ASIST) and Question, Persuade, Refer (QPR) training initiated by VDH and DMHMRSAS.

**2002**

- Suicide prevention award of $966,992 over three years to VDH by the Centers of Disease Control and Prevention. VDH's efforts focus on training and distribution of materials to promote early recognition of the warning signs of depression and suicide in order to provide active intervention and referral of those who may have a tendency toward suicide.
- Third Annual Virginia Suicide Prevention, Intervention and Healing Conference held, sponsored by DMHMRSAS, Virginia Suicide Prevention Council, and VDH.
- Senate Joint Resolution No. 108 directs the Joint Commission on Behavioral Health Care, in cooperation with DMHMRSAS and VDH, to develop a plan and strategy for suicide prevention in the Commonwealth.
- Funding received to implement the National Violent Death Reporting System in Virginia, which will link information on violent deaths from sources such as forensic pathology, law enforcement, forensic science and vital records.
- DMHMRSAS initiated the proclamation of Childhood Depression Awareness Day declared by the Governor on May 7, 2002.
- Website on suicide prevention created by VDH (www.preventsuicideva.org ).
- Report on *Suicide Associated Deaths and Hospitalizations, Virginia 2000*, by the Center for Injury and Violence Prevention, VDH.
- Report on *Child Death in Virginia: 2001*, by the Virginia State Child Fatality Review Team.

**2003**

- Developing a Plan and Strategy for Suicide Prevention in the Commonwealth by the Joint Commission on Behavioral Health Care. Main recommendation is to charge the Secretary of Health and Human Resources, in cooperation with the Secretaries of Education and Public Safety, to lead an interagency and cross-secretarial effort to formulate a comprehensive Suicide Prevention Across the Life Span Plan for the Commonwealth.
- Senate Joint Resolution 312 was passed by the General Assembly. It requests the Secretary of Health and Human Resources, in cooperation with the Secretaries of Education and Public Safety, to formulate a comprehensive Suicide Prevention Across the Life Span Plan for the Commonwealth.
- Suicide Prevention Guidelines revised to include criteria for following up with parents of students expressing suicidal intentions after initial contact has occurred.
- Interagency Youth Suicide Prevention Coordinating Committee's name is changed to Interagency Suicide Prevention Coordinating Committee and is expanded to cover the lifespan and representation broadened to include the Virginia Department for the Aging, the Virginia Commission on Youth, and the Department of Corrections.
- Regional Planning Sessions for Suicide Prevention held in Abingdon, Lynchburg, Arlington, Prince William County, and Norfolk and with representatives of faith-based organizations, higher education institutions, and with the Interagency Suicide Prevention Coordinating Committee.

## Epidemiology of Suicidal Behaviors in Virginia

In 2002, the latest year for which data are available, there were 792 suicides in the Commonwealth, or about two suicides per day, for an age-adjusted rate of 10.8 suicides per 100,000 persons.[i] It was the eleventh leading cause of death among all Virginians and the third leading cause of death for youth. Twice as many died from suicide in Virginia as compared to homicides.[h] In 2001, Virginia's suicide rate ranked 31st highest in the nation.[i] The national target is 5.0 suicides per 100,000 by the year 2010.[j]

For every suicide, there are about 25 suicide attempts; thus there were about 19,800 suicide attempts in 2002 in Virginia. Suicide attempts are three times more common in women than in men. Also, each suicide intimately affects at least 6 other people.[k]

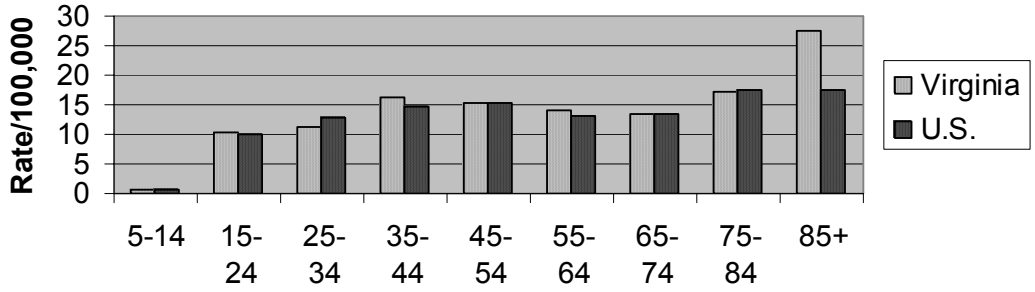
In 2002, the 792 suicides can be broken down as follows:

- 617 (78%) were suicides by males
- 535 (68%) of the suicides were by 25 - 64 year olds
  - 341 (64%) of these suicides were by white males
- 490 (62%) were deaths by firearms
  - 422 (86%) of the suicides by firearms were by males

### Comparisons with National Rates

Suicide rates for Virginia in 2001 were very similar to those for the U.S., with the exception of the elderly aged 85 and over (Figure 1). The 2000-2002 average for this age group in Virginia was 37% higher than the national rate for 2001.

**Figure 1: Age-Specific Suicide Rates, Virginia and U.S., 2001**




**Source: Virginia Center for Health Statistics**

[i] Age-adjusted rates are standardized to a common population age distribution, in this document, the Year 2000 U.S. population. This allows for comparison among populations in spite of differing age distributions.

## Trends

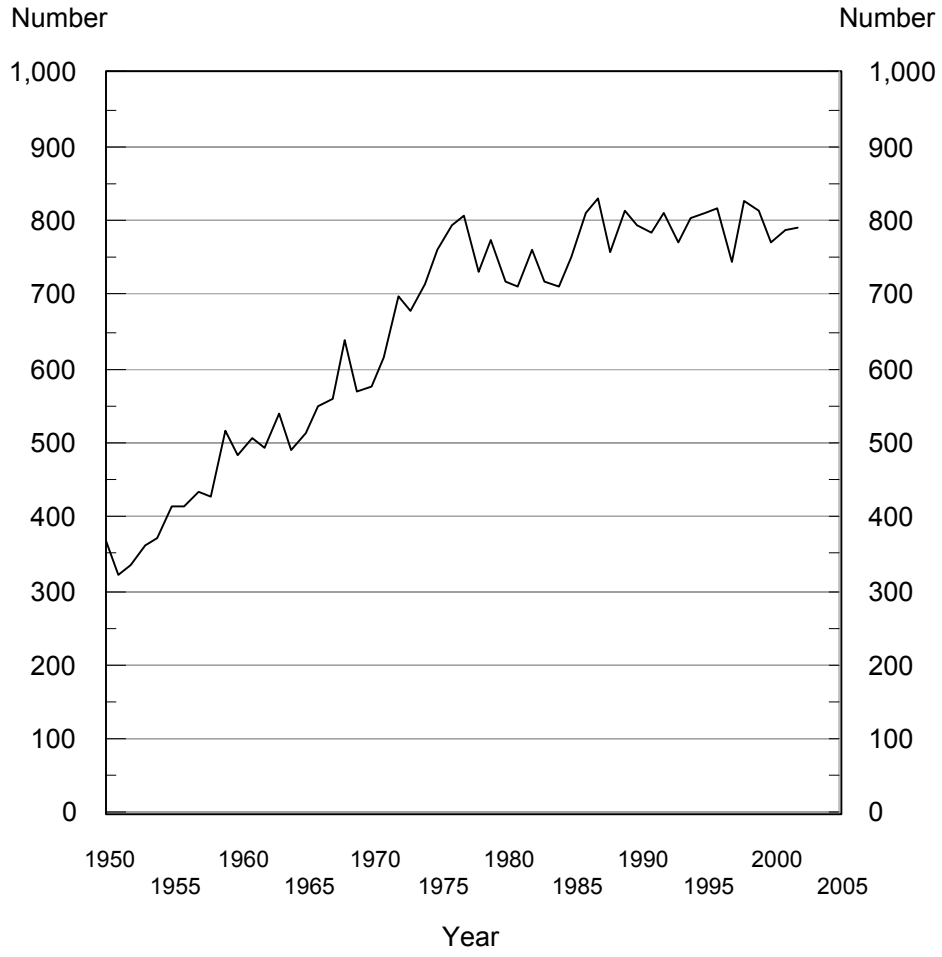
While the number of suicides in Virginia has risen by a third since 1970, it has stabilized since 1990 (Figure 2). Suicide death rates rose rapidly between 1950 and the mid-70s but have since declined by about 30% such that in 2002, the rate was similar to that of the mid-1950s (Figure 3). The suicide rate to 45-64 year olds has declined dramatically: since 1975, the rate has halved. Suicide rates for 20-44 year olds and 65-74 year olds have each declined since 1975 by 31%. The suicide rates of 15-19 year olds has remained relatively stable, however the rate for 2002 (5.8/100,000) is the lowest since 1975 – this rate will have to be monitored to see whether it indicates the beginning of a downward trend. The rate for the elderly ages 75 and over fluctuates greatly but both the rates for 75-84 year olds and for those 85 and over do not appear to have changed much during the past 28 years (Charts 1 to 10 in Appendix B)[i]. Rates for white males and females have declined since 1975 but for non-white males and females show little change (Figure 4).

## Geographic Distribution

Suicides occur in all areas of Virginia (Figure 5). The highest rates are in rural areas, primarily in the Southwest and West Piedmont areas. For the most recent four-year period (1999-2002), Figures 6 and 7 show the cities/counties and planning districts with at least 20 suicides over a four-year period and rates at least as high as the Virginia rate. In descending order, the counties of Buchanan, Scott, Russell, Wise, Lee, Dinwiddie, Pulaski, and Tazewell had suicide rates at least 1.75 times the state rate and accounted for 232 suicides (7% of total) over a 4-year period. Lenowisco (Planning District 1) and Cumberland Plateau (Planning District 2) had rates at least twice as high as the state rate and the rate of West Piedmont (Planning District 12) was at least 1.5 times the state rate. Mount Rogers (Planning District 3) and the Roanoke Area (Planning District 5) had rates that were 1.25 times higher. Outside of these Planning Districts, Dinwiddie, Louisa, Culpeper, Isle of Wight, Shenandoah and Warren counties had similarly high rates. Together, the suicides in these areas accounted for 25% (786 suicides) of the total during those four years (Appendix C). Fairfax County had the highest number of suicides, at 274 over a 4-year period, but with a rate well below the state rate (7.0/100,000).

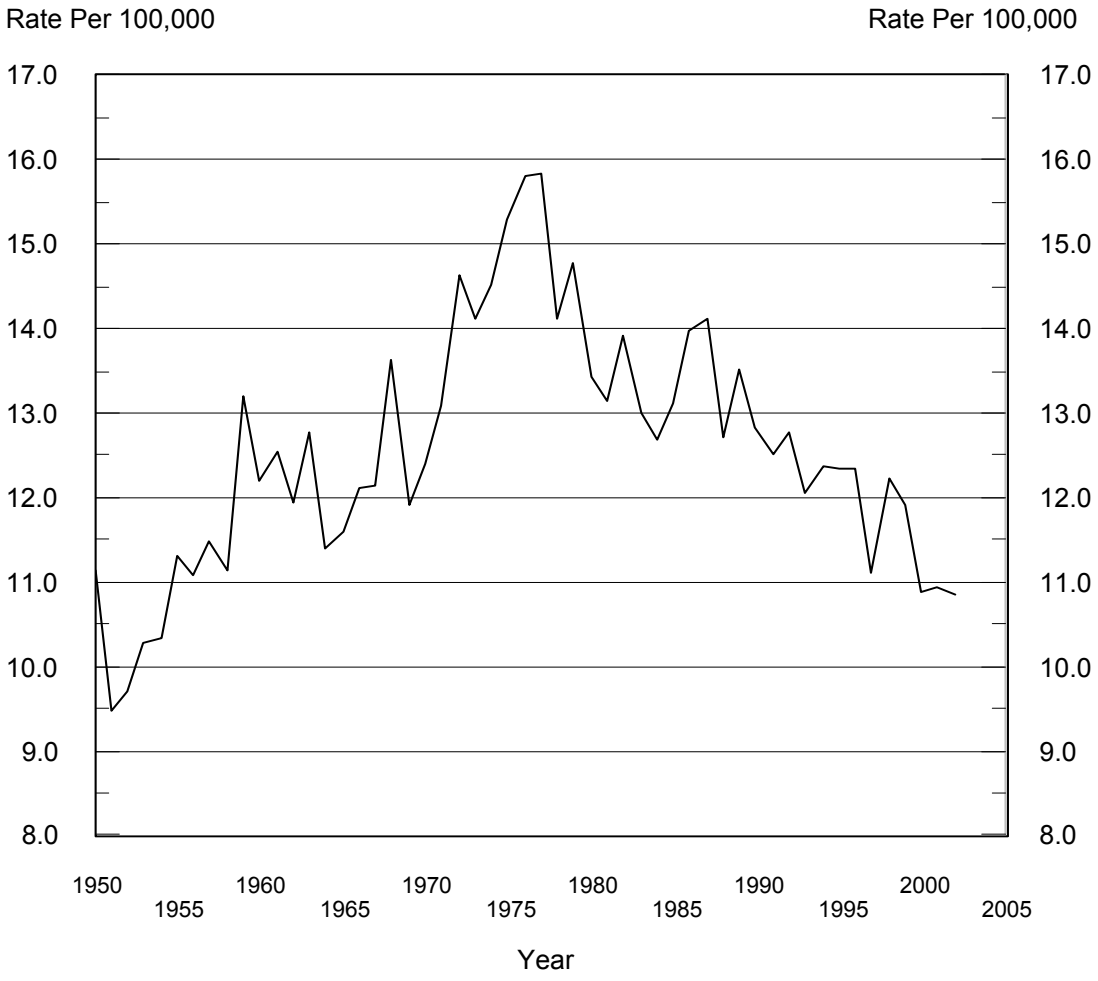
[i] Rates for ages 85 and over, 1975 – 2002: The straight-line descriptor of the rates has a slight positive slope: it rises from 18.9/100,000 in 1975 to 22.9/100,000 in 2002. However, it fails conventional probability tests as a descriptor, indicating no increase during those years.

**Figure 2**
**Total Resident Deaths From Suicide**
**Virginia, 1950-2002**



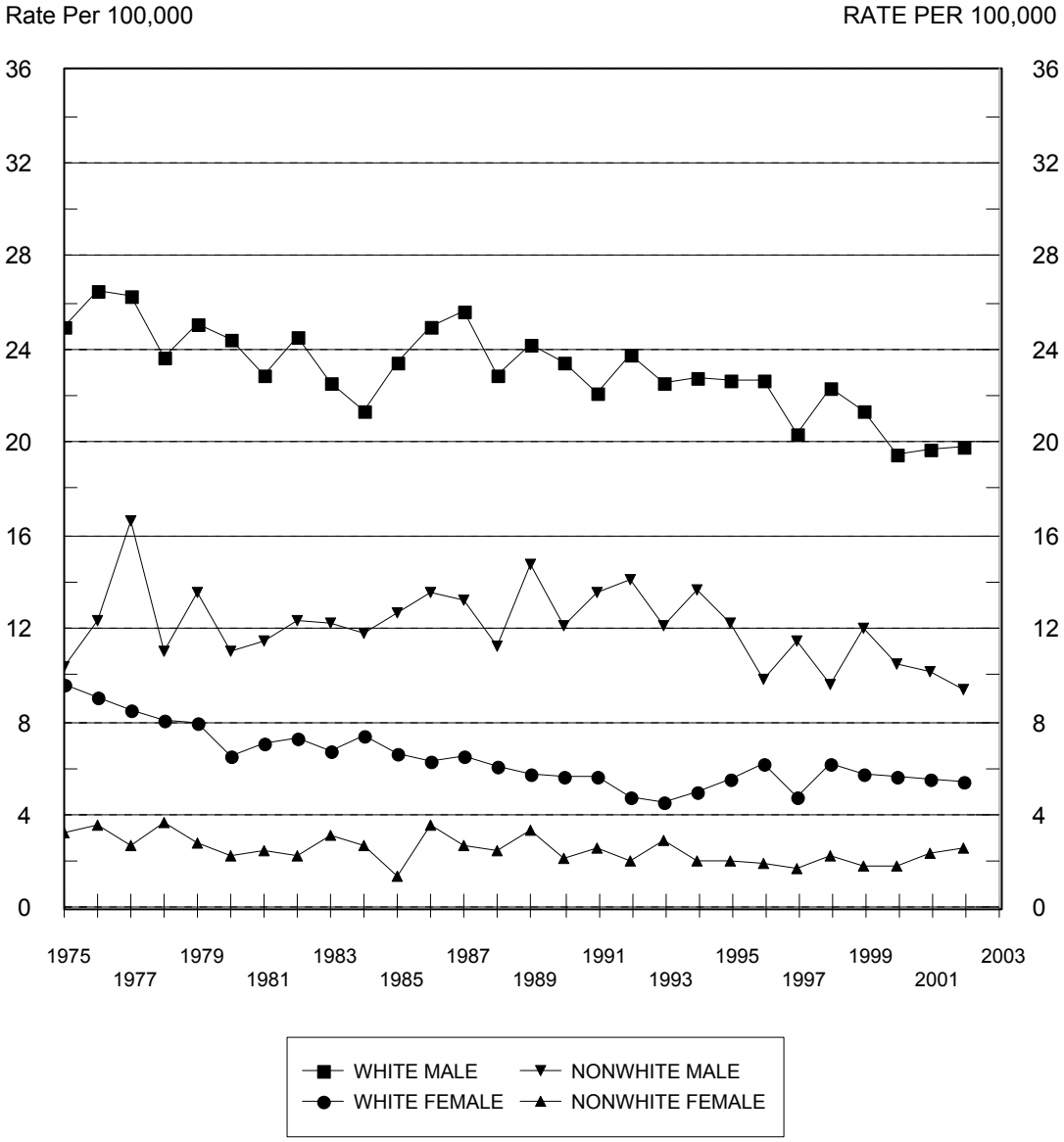

SOURCE: Virginia Center For Health Statistics

## Figure 3
## Total Resident Death Rates From Suicide
## Virginia, 1950-2002



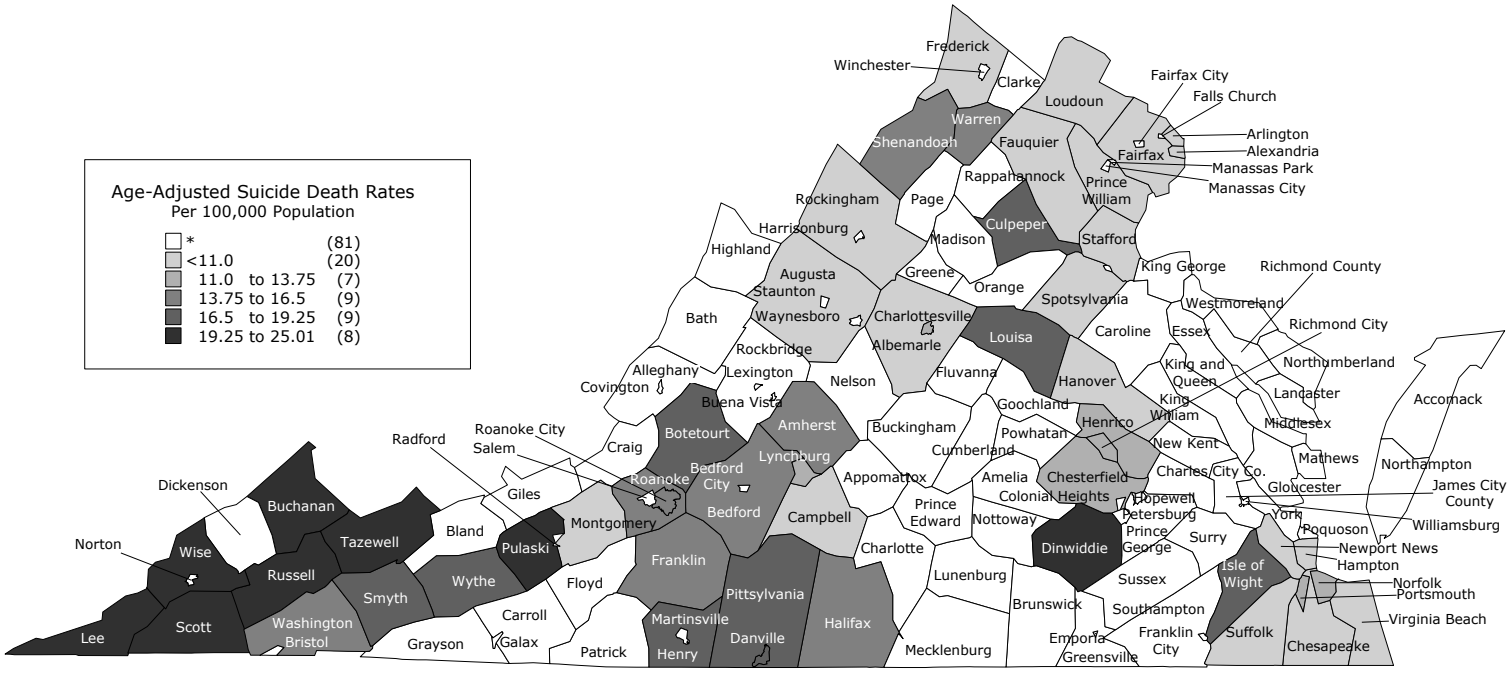

The Rates Are Per 100,000 Population of the U.S. Census and the VA State Data Center
SOURCE: Virginia Center For Health Statistics

## Figure 4
## Resident Suicide Death Rates By Race And Sex
## Virginia, 1975-2002




SOURCE: Virginia Center For Health Statistics

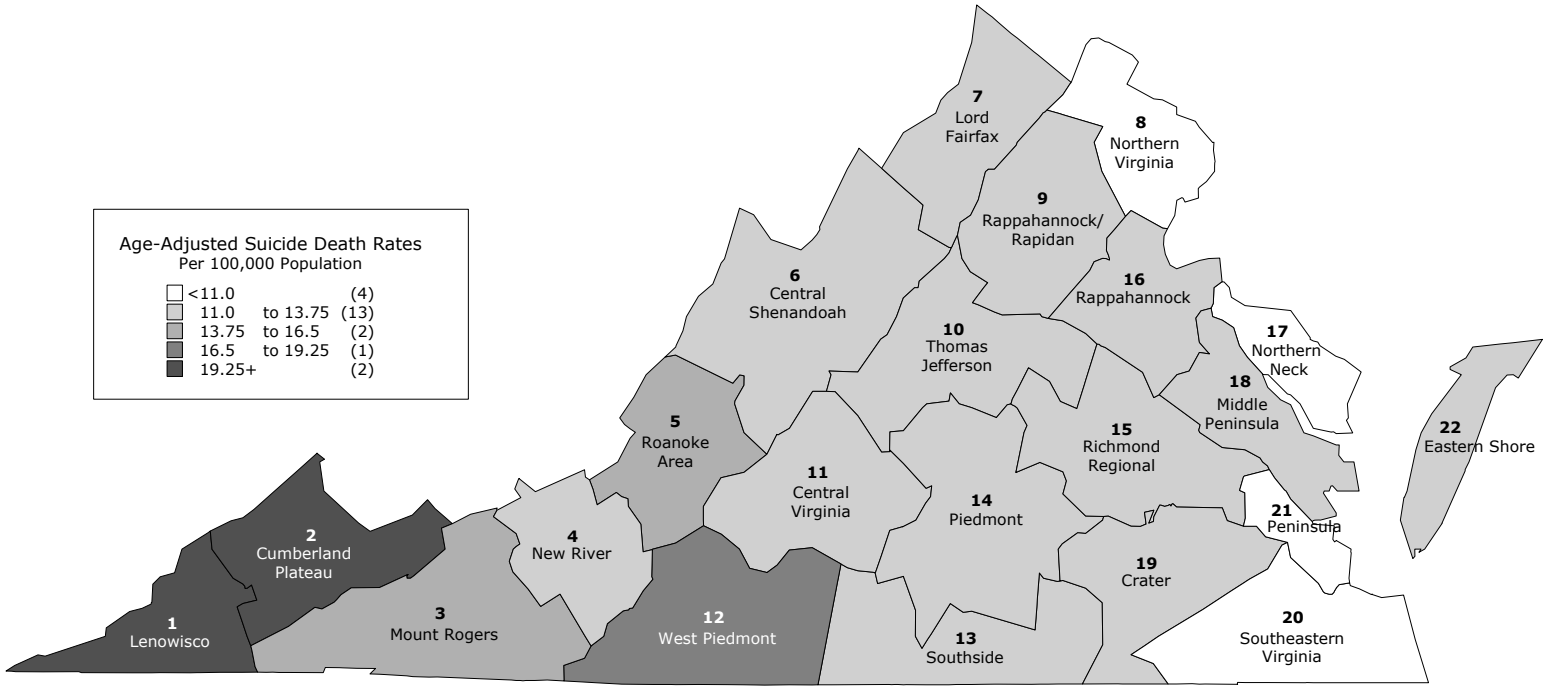
## Figure 6: Resident Age-Adjusted Suicide Death Rates Per 100,000 Population By City and County Virginia, 1999-2002




Source: Virginia Center for Health Statistics

* Number of cases too small (<20) to calculate reliable rate
Note: 11.0/100,000 is the age-adjusted rate for Virginia

**Figure 7: Resident Age-Adjusted Suicide Death Rates Per 100,000 Population By Planning District Virginia, 1999-2002**

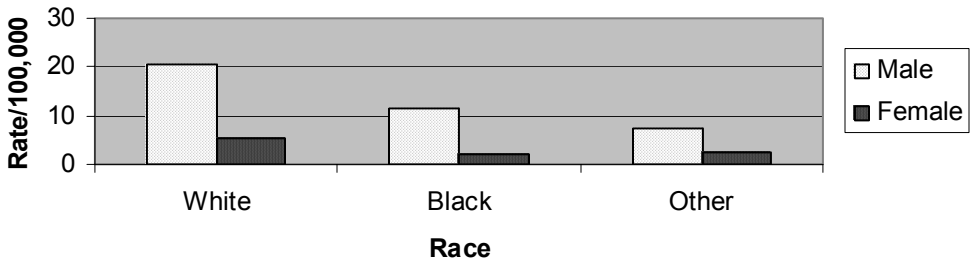



Source: Virginia Center for Health Statistics
Note: 11.0/100,000 is the age-adjusted rate for Virginia

## Gender and Race

In 1999-2002, males in Virginia had age-adjusted suicide rates that were four times higher than those of females (18.6 and 4.6 respectively). The rate for white males was highest, 20.7 as opposed to 11.4 for black males. Black females had the lowest rates, at 2.1 and the rate for white females was 5.4 (Figure 8).

**Figure 8: Age-Adjusted Suicide Rates by Gender and Race, Virginia, 1999-2002**




**Source: Virginia Center for Health Statistics**

The pattern of suicide over the lifespan is strikingly different among the four major race/gender categories[i]. Among white males, the suicide rates rise steadily through age fifty-four; thereafter they rise dramatically and peak for those ages 85 and over. By contrast, the suicide rate peaks twice for black males: between 20 and 34 years and then again among those ages 85 and over. Between the ages of 5 and 34, the rates for both white and black males are similar. The rates for females are relatively low throughout the lifespan but reach the highest point between the ages of 35 - 44 for white females and 35 - 54 for black females. The rates for black females are very low: the highest rate for any age group is 4.1/100,000 (Figure 9).

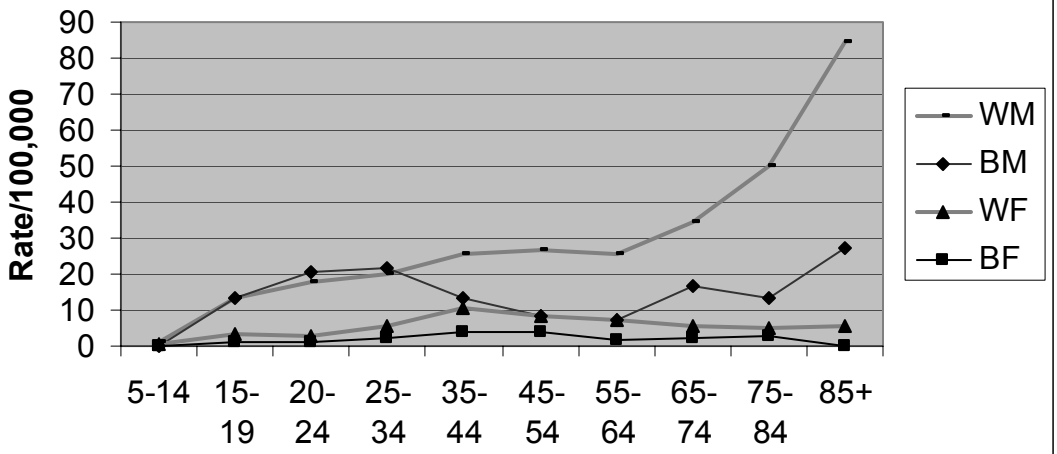
## Mechanism of Suicide

In all age groups, firearms are the major means chosen by those completing suicide. Most recently, suffocation (mostly hanging) has become a more common means among 10-14 year olds nationally.[1] In Virginia, suffocation (mostly by hanging) is the second most common method, followed by drugs and gases (Figure 10).

[i] Rates for other race categories are available, but the numbers are so small that they are not deemed reliable.

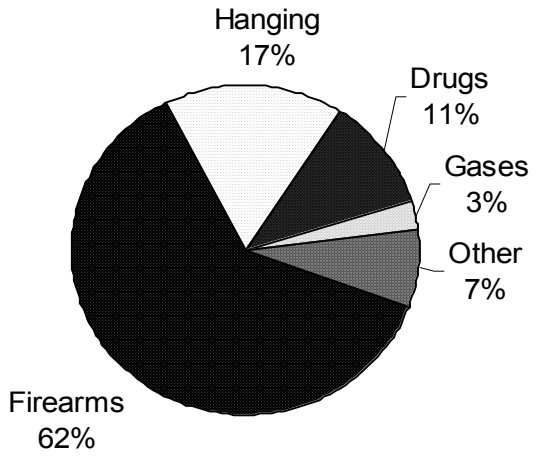
Since 1988, the suicide rate by firearms and gases has declined by 23% and 64% percent, respectively. The rate of suicide by suffocation, though, has risen during this same period. Suicide by drugs has fluctuated (Figure 11).

**Figure 9: Age-Specific Suicide Rates by Race and Gender, Virginia, 1999 - 2002**



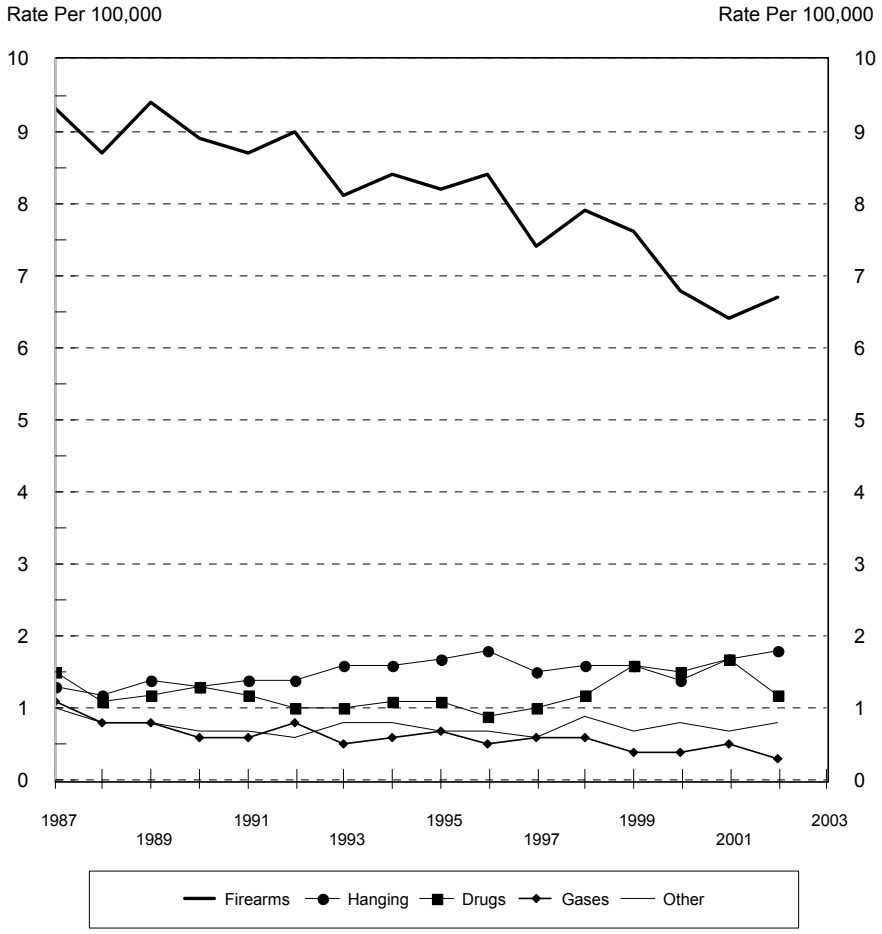

Source: Virginia Center for Health Statistics

**Figure 10: Mechanism of Suicide, Virginia, 2002**




Source: Virginia Department of Health

**Figure 11**
**Resident Suicide Death Rates By Method**
**Virginia, 1987-2002**




SOURCE: Virginia Center For Health Statistics

## Suicidal Behaviors

For the first time in 2003, the Virginia Department of Health, in collaboration with the Centers for Disease Control and Prevention, included questions on suicidal behavior in the annual Behavioral Risk Factor Surveillance System, a survey of adults ages 18 and older. Table 1 shows the percentage of respondents reporting various suicidal behaviors and the estimated number of adults in Virginia who would expect to exhibit these behaviors based on the reported percentages.

**Table 1: Estimated Prevalence of Self-Reported Suicidal Behaviors, Among Adults Ages 18 and Over in Virginia, 2003**

| Suicidal Behavior | Frequency (%) | Estimated No. of Adults in Virginia with Behavior, 2003 |
|---|---|---|
| Seriously considered attempting suicide | **3.0** | **166,802** |
| Serious plan to attempt suicide | **1.4** | **77,841** |
| Attempted suicide | **0.5** | **27,800** |
| Suicide attempt that required medical attention | **0.2** | **11,120** |

**Source:** Behavioral Risk Factor Surveillance System, Virginia Department of Health, 2004

In addition, nearly 2% of the surveyed adults reported suffering from depression, anxiety, or an emotional problem that limited their activities. Of those women who had a baby in the past year, 12.7 percent said they had felt sad or blue before pregnancy, 30.4% reported this feeling during pregnancy, and 38% after pregnancy.[m]

The Centers for Disease Control and Prevention conducts a national survey of youth risk behaviors, including questions of high school youth about sadness, hopelessness, and suicidal thoughts and behaviors. Data specific to Virginia is unavailable from this study. Results from most questions are available since 1991 and indicate[n]:

- Nearly 30% of youth have felt sad and hopeless for two weeks or more during the past year, such that they have stopped some usual activities. This feeling is higher among females (33%) than males (20%). Among Hispanic females, this percentage is particularly high – 45% in 2003.
- Overall, 17% of youth seriously considered attempting suicide in 2003, with a higher percentage among females (21%) than males (13%), although the rate for black females is lower (15%).
- Fewer youth seriously considered suicide in 2003 (17%) as compared to 1993 (24%). This finding is consistent among all females and white males. Among minority males there appears to be a decline, but it may not be significant.
- Close to 9% of youth attempted suicide during the past year. The percentage was over twice as high among females (11.5%) than males (5%) and was lowest among white male youth (4%) and highest among Hispanic females (15%).
- Three percent of youth reported attempting suicide in the past twelve months and required medical attention as a result. These attempts appear to be somewhat higher among minority youth.
- Although data for youth of other (neither white, black nor Hispanic) are available, the rates are based on small numbers and are generally not reliable.

Data on suicidal behaviors is also available from Virginia Poison Centers and from hospital discharge reports. In 2003, 5,705 (called suicidal poison exposures) were reported to Virginia Poison Centers, for an average of 16 calls per day. Two-thirds of the callers were female and one-fourth were children and youth under the age of twenty. Ninety-three percent of callers were exposed in their own residences. Among 6-19 year olds, the most common types of exposures among callers were to analgesics (37%), antidepressants (15%), sedatives/antipsychotics/hypnotics (10%), cough and cold preparations (6%), and antihistamines (5%). Among adults 20 years or older, the most common exposures were to sedatives/antipsychotics/hypnotics (22%), analgesics (22%), antidepressants (16%), alcohols (9%), and antihistamines (4%)[o].

Self-inflicted injuries resulted in 4,210 hospitalizations in Virginia in 2002 and accounted for 11.4% of all injury-related hospitalizations. Self-inflicted injuries accounted for 13.6% of the injury hospitalizations for females and 9% of the injury hospitalizations for males. When considering age, certain patterns of hospitalization occur. The 15-34 year age group experienced the highest percentage of all injury hospitalizations attributable to self-inflicted injuries (Appendix E). For example, 12.7% of all those hospitalized for injury in Virginia were 15-19 year olds who were hospitalized for self-inflicted injuries, while only 3.3% of all those hospitalized for injury were those 65 years of age and older who were hospitalized for self-inflicted injuries. Similar conclusions can be drawn when analyzing the proportion of injury hospitalizations within a particular age group that were attributable to injury. About a quarter of all injury hospitalizations experienced by those 15-44 were due to self-inflicted injury (Appendix E) in comparison to the elderly for whom self-inflicted injuries are an insignificant percentage (1%) of injury hospitalizations.

## Risk and Protective Factors[i]

In the U.S., about 90 percent of people who completed suicide had a mental illness, including alcohol and/or substance use disorders and some had multiple diagnoses. About 50% of those who completed suicide were not in treatment. Those who were in treatment often were not adequately medicated, sufficiently followed after acute treatment, and/or did not adhere to treatment. However, over 95% of those with mental disorders never attempt or complete suicide. Among those who attempt suicide, 30-90% have a depressive disorder and up to two-thirds are intoxicated with alcohol. Therefore, in this country, the problem of suicide is inextricably linked to the issue of mental health and substance abuse.

About 28-30% of the US population has a mental or addictive disorder, but only about a third of those with mental illness receive treatment. In 1997, a national survey found that in children and adolescents ages 6 to 17 years with mental health problems severe enough to indicate a clinical need for mental health evaluation, 79% did not receive a mental health evaluation or treatment in the past year.[p] Barriers to receiving treatment include

[i] Unless otherwise noted, the source of information for this section from Institute of Medicine. 2002. *Reducing Suicide: A National Imperative.* Washington, D.C.: National Academy Press.

stigma, limited insurance coverage, fragmentation of services, and low availability of services, especially in rural areas and communities with large minority populations.

Care to people with mental health problems is provided by mental health providers but also primary care practitioners and the clergy. Older adults, African Americans, and Hispanic Americans more often seek help for mental health issues, including suicide, from clergy rather than from mental health professionals. About half of people with depression and other mental disorders obtain mental health treatment in primary care settings. Nearly 75% of persons dying by suicide see a medical professional within their last year of life. About 40% of these people had contact with a primary care provider within a month of their death; 20% within a week before suicide. Among older people, 70% saw a health professional within a month of the suicide.

Researchers have identified patterns of high risk for suicide during certain periods of treatment, such as immediately after discharge from a hospital and early in treatment, before consistent drug and therapy treatments have been established.

Specific diagnoses associated with suicide attempts include:

- 30-90% with depressive disorder. As compared with the population as a whole, those with major depressive disorder have a 40 times higher risk of suicide.
- 30% with a personality disorder, in particular borderline personality (BPD) and antisocial personality disorders. Although BPD affects 2% of adults; 40-90% of people with BPD have attempted suicide.
- 25% with an alcohol abuse disorder. As compared to a psychiatrically healthy population, those with this disorder have 115 times greater risk of suicide.
- 20% with anxiety disorders, including post-traumatic stress disorder
- 5% with schizophrenia; they have 40 times greater risk of suicide than the population as a whole.
- 5% with bipolar disorder. This condition affects about 1.2% of the population but 25-50% of those with this disorder will attempt suicide at least once.
- Mood disordered individuals with impulsive aggression are at much greater risk for suicidal behavior than are those without this characteristic.

However, not all suicides or persons who attempt suicide have a mental health condition. A recent study found a significantly higher likelihood of suicide attempts, independent of effects of mental disorders, among people suffering from lung disease, ulcer, and AIDS with the number of physical illnesses related to an increased odds of suicide attempt.[q]

Specific protective and risk factors associated with suicide are presented in the charts below. Of particular note is the relationship between childhood trauma and suicidal behaviors. In a review of multiple studies, it was found that adults with a history of childhood physical and sexual abuse were 1.3 to 25 times more likely than adults without a past history to attempt suicide. Conversely, from 20-49 percent of child sexual abuse victims do not exhibit noticeable symptoms. The most common outcomes of sexual or physical abuse are depression and post-traumatic stress disorder but also include impaired social attachments, low self-esteem, substance abuse, and delinquent behavior. In

particular, childhood sexual abuse is a risk factor in about 9-20 percent of suicide attempts. This abuse is more likely when parents are depressed or substance abusers.

New biological research is showing a link between chronic stress, impulsivity, genetic inheritance and suicidal behaviors. Eventually, this research could help practitioners identify and follow patients who may be at most risk for suicidal behaviors. For example, irregularities of the hypothalamic-pituitary-adrenal axis, one of the body's primary stress response systems that becomes dysfunctional after trauma, such as abuse or chronic stress, are associated with suicide, independent of psychiatric diagnosis. Low levels of the neurotransmitter serotonin, associated with increased impulsive aggression, have been found in the brains and cerebrospinal fluid of serious suicide attempters and suicide victims.

Risk factors vary across the lifespan. For example, youth are more likely to exhibit irritability, acting out behaviors, and anger rather than exhibiting sad and depressed affect. Suicide victims under 30 are more likely to have problems with substance abuse, impulsive aggressive personality disorders, and precipitants such as interpersonal and legal problems than those over 30. Among the elderly, widowhood, serious medical illness, and social isolation are risk factors. In the U.S., the highest suicide rate is among bereaved elderly white men.

The Institute of Medicine, in its landmark report, Reducing Suicide: A National Imperative, summarizes risk factors for suicide succinctly:

> Risk factors associated with suicide include serious mental illness, alcohol and drug abuse, childhood abuse, loss of a loved one, joblessness and loss of economic security, and other cultural and societal influences. Resiliency and coping skills, on the other hand, can reduce the risk of suicide. Social support, including close relationships, is a protective factor.[r]

and

> Converging evidence across disciplines indicates that suicide is related to stress: developmental and adult trauma; cumulative stressors, including multiple morbidities; acute and chronic social and cultural stressors; and capacity to cope with stress. Suicide can be considered an expected outcome of a significant subgroup of mentally ill patients who experience accumulative life stresses, just as cardiac infarction is an expected outcome of untreated high blood cholesterol.[s]

**Protective Factors**

- Effective clinical care for mental, physical and substance use disorders
- Easy access to a variety of clinical interventions and support for help-seeking
- Restricted access to highly lethal means of suicide
- Strong connections to family and community support
- Support through ongoing medical and mental health care relationships
- Skills in problem solving, conflict resolution and nonviolent handling of disputes
- Cultural and religious beliefs, including those that discourage suicide and support self preservation

Adapted from Risk and Protective Factors for Suicide, Suicide Prevention Resource Center, www.sprc.org

**Risk Factors for Suicide**

*Biopsychosocial Risk Factors*

- Mental disorders, particularly mood disorders, especially depression, and schizophrenia, anxiety disorders and certain personality disorders
- Alcohol and other substance use disorders
- Hopelessness
- Impulsive and/or aggressive tendencies
- History of trauma or abuse, in particular sexual abuse
- Some major physical illnesses
- Previous suicide attempt
- Family history of suicide

*Environmental Risk Factors*

- Job or financial loss; low socio-economic status
- Relational or social loss, such as divorce or death
- Easy access to lethal means
- Local clusters of suicide that have a contagious influence

*Sociocultural Risk Factors*

- Lack of social support and sense of isolation
- Stigma associated with help-seeking behavior
- Barriers to accessing health care, especially mental health and substance abuse treatment
- Certain cultural and religious beliefs (for instance, the belief that suicide is a noble resolution of a personal dilemma)
- Exposure to, including through the media, and influence of others who have died by suicide

Adapted from USDHHS National Strategy for Suicide Prevention: Goals and Objectives for Action, 2001. Public Health Service, Rockville, MD.

## High Risk Populations

High-risk populations are those that are known to have a higher than average suicide rate or rate of suicidal behaviors and risk factors. Based on the research, high-risk populations include:

**For suicide**

- Men
- Elderly men, in particular widowers
- Rural residents
- Unemployed youth who have dropped out of school
- Incarcerated populations – most often young white males arrested for non-violent offenses and intoxicated upon arrest, frequently within 24 hours of incarceration.
- Dentists, physicians, and nurses
- Mathematicians and scientists, artists and social workers
- Homosexual/bisexual males

*Note: Although police have been cited as having higher risk for suicide, studies have shown inconsistent results.*

**Suicidal thoughts or attempts**

- Women
- Youth, in particular females, especially Hispanic females

## Effective Strategies[i]

In the field of suicide prevention, a widely used model for grouping strategies is the Universal, Selective, and Indicated prevention model. ***Universal*** strategies are designed to reach all the members of a community or population and include public education campaigns, changes in laws or policies to improve access to care or reduce access to means, strategies aimed at improving the reporting of suicides, and initiatives to improve student wellness, such as sports programs. ***Selective*** strategies are targeted for the population groups at higher risk for becoming suicidal, for example, those with undiagnosed and untreated mental health conditions, the elderly, victims of abuse, unemployed persons, and depressed youth. These initiatives aim at preventing the onset of suicidal behaviors. Examples include the training of those persons in positions of responsibility who are most likely to come into contact with the higher risk population (also referred to as "gatekeeper" training), screening and treatment for depression or substance abuse, and developing supportive networks for elderly widowers. ***Indicated*** strategies are intended to prevent suicide among those most at risk for suicide and showing early signs of suicide potential, such as people who have expressed an intent or attempted suicide. Effective treatment, follow-up and support are considered "indicated" strategies.

The Institute of Medicine report, Reducing Suicide: A National Imperative recognizes that, while the indicative strategies target the groups at highest risk for suicide, these initiatives are limited in their impact on reducing the incidence of suicide because of the low prevalence of many of the high-risk conditions, such as unipolar depression. In comparison, universal and selective strategies have the potential for influencing a larger percentage of the population, including those at high risk, and therefore have a higher chance of reducing suicides.

Demonstrating the effectiveness of suicide prevention initiatives is difficult. Suicides are rare events, so establishing program effectiveness demands very large numbers of participants or very long-term studies and similarly high funding levels. Suicide ideation can be used as an alternate measure, but it is unclear whether suicide ideation is a strong predictor of suicide. Definitional problems plague this area too as researchers use different definitions and tools to identify suicidal intent. Researchers also have shied

[i] Unless otherwise noted, the source of information for this section from Institute of Medicine. 2002. *Reducing Suicide: A National Imperative.* Washington, D.C.: National Academy Press.

away from conducting studies with individuals at risk for suicide because of liability concerns.

Selecting a particular strategy involves evaluating its appropriateness for the intended audience as well as the effectiveness as demonstrated by a rigorous evaluation. Negative effects can occur if adapting the intervention to a population other than the one for which it was designed. Moreover, when evaluating or designing a strategy for a particular group, the cultural norms, beliefs and behaviors or the group must be taken into account.

This section summarizes effective strategies in preventing suicide, suicidal behavior or risk factors that may be targeted to the population as a whole or to specific groups. It does not include a summary of effective medications or therapies that may be prescribed to individuals by clinicians, such as anti-depressants, lithium, or psychotherapy. This is not to minimize the effect of such methods; rather, summarizing such methods is beyond the scope of this document.

## Integrated Programs

Integrated programs combine universal, selective and indicated strategies. While examples cited below demonstrate that such approaches can be effective, there is also compelling logic to the integrated approach. Why increase public awareness without having adequate services and community support to help those most in need? Strengthening mental health services is valuable when coupled with actions to reduce barriers toward utilization of those services. Common elements of effective integrated programs are an assessment of the problem that identified the particular risk factors of the community, an integrated program specifically designed to address that problem, and a high level of involvement by leadership.

United States Air Force Program After first conducting a comprehensive assessment of the suicide problem in the United States Air Force, a program was developed with the help of the Centers for Disease Control and Prevention. The program consisted of:

- involving the Air Force leadership in raising the awareness of mental health and removing the stigma of seeking help for a mental health or psychosocial problem;
- training personnel at all levels on skills and knowledge of basic suicide and violence risk factors intervention skills, and referral procedures and resources;
- changing policies to promote help-seeking behaviors;
- establishing a seamless system of human services and strengthening preventive mental health services; and
- establishing multidisciplinary teams to improve response to traumatic events.

The program evaluation was a quasi-experimental design comparing suicide rates before and after intervention, and controlling for changes in demographic variables. The researchers found a 33% decline in suicide rates and an 18-54% reduction in rates of moderate and severe family violence after program implementation. The authors cite the

possible application of this program to other controlled environments such as workplace settings, larger corporations, and schools and universities.[t]

Integrated Programs on U.S. American Indian Reservations Several integrated interventions to reduce high suicide rates have been used effectively in U.S. American Indian reservations. In one, after an assessment to identify the most predominant risk factors, a program was initiated involving the active and enthusiastic participation of the local tribal members, social and economic improvements, traditional Indian cultural enhancement programs, and increasing mental health services. The suicide rate fell from 173/100,000 in 1972-76 to 45/100,000 in 1981-84. In another community, the suicide rate fell from 267/100,000 to 26.7/100,000 after a program was put into place consisting of suicide awareness, prevention strategies, and a counseling program.

In summary, the Institute of Medicine report states:

> Programs that integrate prevention at multiple levels are likely to be the most effective. Comprehensive, integrated state and national prevention strategies that target suicide risk and barriers to treatment across levels and domains appear to reduce suicide.[v]

## Reducing Access to Means

Universal strategies such as technological and legislative measures to reduce access to the means of suicide are considered to have the greatest potential impact because they do not rely on human compliance for their success. For example, introducing blister packs for storing acetaminophen was associated with a 21 percent decrease in overdoses and a 64 percent decline in severe overdoses, whereas overdoses due to benzodiazepines, which were not similarly packaged, remained stable.[w]

In three case-control studies, firearms were found to be between 31.1 and 107.9 times more likely to be used for the suicide if a gun was already in the home than if they were not in the home.[xy] It would seem logical to promote measures to restrict access to lethal means, or at least promote the safe storage of such means in the home, particularly in those where residents have severe mental health conditions.

Quasi-experimental studies have shown a relationship between enactment of gun control legislation and the suicide rate. Counseling by physicians on the removal of guns in the home has limited effectiveness. In one study, only 27% of parents who reported having guns in the home had removed the guns by a follow-up visit after counseling by a physician.[z]

## Identifying those At Risk for Suicidal Behavior

Several instruments have been developed and evaluated to assess risk for suicidal behavior. In one, the most widely used Scale for Suicide Ideation (SSI), patients with a score above a 3 were about 6.5 more likely to complete suicide than those whose score was below this level. Some scales work with some populations better than others so care

must be made to select an instrument that is appropriate for the intended purpose and the particular cultural background, age, and gender of the patients.

## Follow-up Care

The time immediately after a suicidal patient is discharged from a hospital is one of high risk for suicidal behavior. This may be due to poor adherence to medication but other factors include isolation, access to means, or loss of contact with a health professional. Some institutions have initiated and evaluated follow-up care by a health care provider. Several of these initiatives show promise, with demonstrated reductions in suicidal behavior as compared to a control group.

## Programs Aimed at Preventing Youth Suicide

This section summarizes a number of programs or initiatives aiming to prevent youth suicide that have shown some effectiveness in changing knowledge, attitudes or behavior. Several other programs, for example, comprehensive school programs to address youth violence, are being evaluated but final results are not available.

### *Universal Strategies*

Programs and policies that appear effective include:

- Increase in the legal drinking age. Between 1970 and 1990, in states with a minimum legal drinking age of 18 years, the suicide rate among 18-20 year olds was 8 percent higher than states where the minimum legal drinking age was 21.[aa]
- Broad school-based programs promoting mental health and resiliency that target multiple risk and protective factors and which include skills training in an environment with trained, supportive adults.
- Longer-term programs for youth that raise awareness of suicide prevention, develop skills to act on new attitudes and intentions, and include access to services.

Worth noting here is a conclusion reached in the Institute of Medicine report on universal strategies for youth:

> Given that many schools in the United States employ short-term, school-based suicide awareness interventions that may be ineffective and even potentially harmful, evaluation of various models and dissemination of those found safe and effective emerges as a priority. The most effective United States and international programs integrate suicide prevention into a competence-promotion and stress-protection framework, suggesting closer examination of health promotion as a prevention strategy. The evidence reviewed here supports carefully designed, science-based programs, particularly longer-term approaches couched in a broader context of teaching skills and establishing appropriate follow-through and services, as part of an effective armamentarium against suicide. Brief, didactic suicide prevention programs with no connection to services should be avoided.[cc]

***Selective Strategies***

Effective strategies include:

- Skill-based, action-oriented training of motivated, responsible adults who come into regular contact with youth (gatekeeper training) can be effective in demonstrating appropriate helping competencies in simulations with youth at risk for suicide. Whether or not more suicidal youth are receiving treatment as a result of gatekeeper training has not been systematically evaluated.
- Youth at risk for suicide who were given personal competency training experienced a reduction in suicide-risk behaviors. For example, one program, Reconnecting Youth, trained youth at risk for school failure and found declines in depression, hopelessness, anger, and stress and significant gains in self-esteem and personal control.
- Early treatment for child abuse victims and early family-based interventions to reduce child abuse can be expected to reduce suicide since childhood sexual abuse is a risk factor in 9 – 20 percent of suicide attempts. Nurse home visitation programs to high risk mothers during pregnancy and infancy have been found to be effective in reducing childhood abuse and neglect when contrasted with a comparison group.
- Treatment for suicide risk factors such as depression and substance use, however it is not known if they specifically reduce suicide.

The American Academy of Pediatrics recommends that pediatricians screen adolescents for a history of **sexual** assault and potential sequelae[ee]. If effective, screening and treatment could potentially prevent incidents of suicide attempts and other negative consequences.

***Indicated Strategies***

Strategies falling under this grouping include family support training; case management and skill-building for high-risk individuals; and referrals resources for crisis intervention and treatment. Among high-risk youth, individualized assessment and counseling as well as small-group skills training were successful in reducing depression, hopelessness, and suicidal behaviors compared to a control group.

## Programs Aimed at the Elderly

Primary care clinicians can play a key role in preventing suicide among the elderly, particularly as a high percentage of elderly suicide victims see their primary care physicians in the month prior to death. Major depression is the most common psychiatric disorder among elderly who have completed suicide. It follows that interventions promoting the screening and treatment of depression in the elderly by primary care clinicians should be evaluated. Results from one such indicated program, called PROSPECT, tested the use of Health Specialists working with physicians as care managers to help them recognize depression, recommend treatment, and encourage adherence to treatment. Outcomes of two groups of elderly depressed patients were

compared. The intervention was found to be effective, as compared to a control group, in reducing suicidal ideation and depression.[ff]

### Programs Aimed at Detainees

A number of initiatives have been implemented in jails and prisons including staff education and skills training, changes in housing practices, changes in supervision, improved follow-up and reporting. However, these initiatives have not been evaluated.

### Programs Aimed at Clinicians

Clinicians have an elevated risk for suicide. Since some of these clinicians would be expected to identify and treat or refer those with severe mental health conditions, it follows that reducing help-seeking barriers by clinicians is essential. A consensus statement recently published in the *Journal of the American Medical Association* recommends "transforming professional attitudes and changing institutional policies to encourage physicians to seek help."[gg]

## The Suicide Prevention Plan for Virginia

Aims of the Plan:

1. To prevent deaths due to suicide across the lifespan.
2. To reduce occurrence of other self-harmful acts.
3. To increase recognition of risk factors and improve access to care.
4. To promote awareness of suicide and reduce stigma of mental health.
5. To promote healthy community development, enhancing interconnectedness, resources, and resilience

### Leadership Development and Infrastructure

***Goal 1: Develop Broad-based Support for Suicide Prevention***

Objective 1.1: **By 2006, establish state-level oversight and leadership for suicide prevention planning, implementation, monitoring, and evaluation by assigning the Department of Mental Health, Mental Retardation and Substance Abuse Services (DMHMRSAS) as the lead agency.**

Recommended Action

- Amend the *Code of Virginia* to assign leadership for the statewide suicide prevention initiative across the lifespan to the Department of Mental Health, Mental Retardation and Substance Abuse Services.
- Amend the *Code of Virginia* to assign oversight to the Joint Commission on Health Care concerning the *Virginia Suicide Prevention Plan across the Lifespan.*
- The Department of Mental Health, Mental Retardation, and Substance Abuse Services (lead agency) should form a Private/Public Suicide Prevention Steering Committee (hereafter referred to as the Steering Committee) to support the agency in implementing, monitoring, evaluating, and revising the *Plan* by coordinating strategies and promoting collaboration at the state, regional and local levels.
- The Department of Health should continue to provide leadership in implementing the *Youth Suicide Prevention Plan*.

Notes

The Department of Mental Health, Mental Retardation and Substance Abuse Services shall have responsibility for leading the implementation of the Virginia Suicide Prevention across the Lifespan Plan and for continuously monitoring implementation as well as evaluating and revising the plan. DMHMRSAS is recommended as the lead agency for this effort because a majority of the objectives of this plan address the issue of mental health services. This responsibility shall be coordinated with public and private agencies and organizations with missions related to the prevention of suicide, to include, at a minimum the Departments of Health, Aging, Education, Social Services, Juvenile Justice, Criminal Justice Services, State Police, Corrections, Community Services Boards, health professional associations, colleges/universities, faith organizations, the Virginia Suicide Prevention Council, and representatives of local/regional coalitions. The Joint Commission on Health Care shall annually review a report by the lead agency

documenting the progress toward meeting plan goals, objectives, and recommended action; utilization of resources; need for additional resources; and other systems or legislative needs. The Joint Commission on Health Care shall submit an annual report to the Governor and General Assembly.

Objective 1.2: **By 2007, DMHMRSAS will identify and support strong regional and/or local coalitions to prevent suicide across the lifespan, particularly in areas with high rates and numbers of suicides.** Such coalitions will:

- Develop local/regional strategies, develop partnerships, seek funding, promote collaboration, coordinate services, and promote a seamless service delivery system.
- Convene regional and statewide training and networking events or conferences to help build awareness and increase networking opportunities.

Recommended Action

- Based on available data, DMHMRSAS and Steering Committee should identify areas where local coalitions and interventions are most needed.
- Leaders and organization representatives in each specified region/locality should name DMHMRSAS and form or identify a coalition to take on the leadership for suicide prevention.

Objective 1.3: **By 2008, the state and local/regional lead agencies will have identified and received sustainable and reliable funding for basic, ongoing suicide prevention functions.**

Recommended Action

- DMHMRSAS should seek designation of state and federal funds for basic staff functions in suicide prevention.
- The state and local/regional lead agencies should seek new and varied sources of funding such as government and foundation grants, and corporate support.

Objective 1.4: **By 2008, state and local leaders will be aware and supportive of suicide prevention efforts.**

Recommended Action

- State and local agencies and their partners should educate state, regional and local leaders on the problem of suicide and its prevention.

***Goal 2: Improve and expand surveillance systems***

Objective 2.1: **By 2005, DMHMRSAS, in collaboration with the Steering Committee, will identify and begin systematically collecting, analyzing and disseminating data measures and reports that will constitute the Virginia Suicide Prevention Surveillance System**.

Recommended Action

- DMHMRSAS, in collaboration with the Steering Committee, should develop a surveillance plan for suicide prevention, to include the measures, frequency of collection and analysis, resource needs, and data sources. Such measures and data sources may include:

- ♦ Time trends and geographical and population-specific patterns of suicides.
- ♦ Awareness of the problem of suicide, its symptoms, and prevention strategies through population-wide surveys.
- ♦ Attitudes about mental health and substance abuse conditions and care-seeking.
- ♦ Suicidal behaviors, ideation and related attitudes, risk and protective factors, knowledge and behaviors through adult and youth risk behavior surveys
- ♦ Assessment of the service system and usage through surveys of providers, such as hospitals, crisis lines, community service boards, and police.
- ♦ Cost of suicides and suicide attempts and years of productive life lost.

- DMHMRSAS, in collaboration with Steering Committee member agencies, should regularly disseminate accurate local suicide data that is aggregated geographically or by time period to provide stable rates.
- DMHMRSAS, in collaboration with agencies represented by the Steering Committee, should produce and disseminate a comprehensive report every three years on suicide and suicide attempts, integrating data from multiple data systems.

Recommended Action

- DMHMRSAS should identify those localities or population groups that could most benefit from such studies.
- Consider modifying the *Code of Virginia* to expand the purpose of the Family Violence Fatality Review Teams to allow for the study of all suicides, whether or not they occur as a result of abuse between family members or intimate partners.
- The Chief Medical Examiner's Office, should provide technical support to localities wishing to conduct suicide follow-up studies.

Notes

Follow-back studies consist of the collection of detailed information about the victim, his or her circumstances, the immediate antecedents of the suicide, and other important but less immediate antecedents. They can be used to increase understanding of the causes of suicide and to refine prevention strategies.

Objective 2.3: **By 2005, DMHMRSAS and the Virginia Department of Health will promote and support national efforts to improve and standardize data collection methods.**

Examples of such methods include:

- Increasing the proportion of hospitals using standard external cause of injury coding for suicidal behaviors
- Using standardized protocols for death scene investigations.

***Goal 3: Promote and support research, including evaluation, on suicide and suicide prevention***

Objective 3.1: **By 2008, increase applied research in Virginia that will allow for better targeting of scarce resources.**

Recommended Action

- DMHMRSAS should identify researchers in Virginia universities with an interest in suicidology and promote the conduct of applied research, including evaluation, on initiatives and populations in Virginia.
- Member agencies of local coalitions should conduct comprehensive needs assessments in localities with high suicide rates to identify specific local problems and gaps in services. Needs assessments can include:
  - Comprehensive, confidential case studies of suicides and suicidal attempts in the localities, including assessment of systems barriers (also known as follow-back studies – see Goal 2.2).
  - Assessment of local agency policies and procedures; availability of and access to services; and social and economic factors.

## Awareness

***Goal 4: Develop and implement strategies to reduce the stigma associated with being a consumer of mental health, substance abuse and suicide prevention services.***

Objective 4.1: **By 2010, increase the percentage of the population who recognize the importance of disclosing mental health symptoms to family, friends, or health care professionals and obtaining care for these problems.**

Recommended Action

- DMHMRSAS, in collaboration with member organizations of the Steering Committee, should launch a public education campaign to improve awareness of mental health and substance abuse issues and the importance of disclosing symptoms and obtaining care with the aim of reducing stigma, myths, and denial of mental health conditions and substance abuse.

***Goal 5: Promote Awareness that Suicide is a Public Health Problem that is Preventable***

Objective 5.1: **By 2010, a greater proportion of the population in Virginia will receive public information on the problem of suicide, i.e., that it is preventable, common signs and symptoms, and what the public can do.**

Recommended Action

- DMHMRSAS should:
  - Create an identifiable symbol for use in all public outreach, education, training, and programs.
  - Launch a public education campaign to educate the public about the problem of suicide, its cost, warning signs, causes, available resources, and what the public can do.
  - Expand, strengthen, and publicize the Virginia Suicide Prevention Website (www.preventsuicideva.org ) to cover the lifespan.
  - Improve design and distribution of suicide prevention pamphlets.
  - Local coalitions should hold special outreach and community events, speakers and training to local religious, civic, leaders and organization representatives.

Notes
Specific methods of a public awareness campaign can include identifying a well-known personality to champion the cause of mental health, substance abuse, and suicide prevention; billboards; public service announcements; local television infomercials; and posters. Distribution sites include schools, faith organizations, senior centers, hospital emergency departments and clinics, physicians' offices, civic and community organizations, employers, unemployment agencies; bars; and barbers/hair salons. A community assistance section of the website would include funding information; slideshows and handouts for community events; speakers' bureau, trainers, downloadable brochures and other resources; and local resources, comprehensive referral lists, speakers, statistics, and links.

## Intervention

***Goal 6: Develop and implement community-based suicide prevention programs***

Objective 6.1: **By 2010, reduce the suicide rate in those planning districts with high male suicide rates.** (*Baseline: 36.8/100,000 (66 male suicides) for Lenowisco (Planning District 1), 38.2/100,000 (88 male suicides) for Cumberland Plateau (Planning District 2), and 33.6 (160 male suicides) for West Piedmont (Planning District 12) in 1999-2002; Target: 17.8/100,000).*
Recommended Action

- DMHMRSAS should provide education for regional/local coalition members and other leaders on the problem of suicide and its prevention.
- DMHMRSAS should, in collaboration with a local university, request technical assistance from the Centers for Disease Control and Prevention to:
  - Assess and define the problem of suicide in these areas.
  - Develop an intensive, comprehensive strategy for these areas with a strong evaluation component that is patterned after effective strategies in other rural areas (e.g. programs for rural American Indian communities that promoted social and economic improvements, leadership involvement, traditional culture enhancement programs, and increasing mental health services).
  - Seek financing for such an intervention from a major funding organization.

Objective 6.2: **By 2010, effective programs that address risks and protective factors of population groups at high-risk for suicide will be established.**
Recommended Action
DMHMRSAS should work with state-level representatives/leaders to design or promote programs with demonstrated effectiveness in reducing suicide, suicidal behaviors or associated risk factors. These programs should have strong evaluation components.
Examples:

- *Childhood Trauma:* Promote effective home-visiting programs to prevent trauma and suicide risk.
- *Employers:* Promote the application of comprehensive suicide prevention programs such as the Air Force Suicide Prevention Program.

- *Youth:* Develop effective programs such as those summarized under Effective Strategies.
- *Elderly*: Program could include strategies, in collaboration with Area Agencies on Aging, to raise awareness of this problem and promote connectedness and reduce isolation, particularly among men after a traumatic loss such as death of a loved one. This could be done in conjunction with a replication of the PROSPECT program, as described under Effective Strategies.
- *Colleges/Universities/Technical Centers:* This is the time of onset of many psychiatric disorders and young people typically have lost parental health insurance coverage so this group would seem to be particularly vulnerable to undiagnosed mental health conditions.
- *Health Professionals:* A suggestion would be to provide burnout prevention services to and encourage help-seeking behavior by dentists, physicians, and other at-risk clinical providers.
- *Detainees*: Develop integrated programs, aimed at detainees, particularly within twenty-four hours of arrest, with a strong evaluation component.

Objective 6.3: **By 2010, increase the proportion of family, youth, elderly, and other community service organizations with integrated suicide prevention components as part of their programs.**

Recommended Action

- DMHMRSAS and Steering Committee members should meet with state representatives/leaders of family, youth, elderly, and other community service organizations to educate them on the problem of suicide, and provide materials for and promote the integration of suicide prevention components into their programs.

***Goal 7: Promote efforts to reduce access to lethal means and methods of self-harm***

Objective 7.1: **By 2010, reduce the rate of self-inflicted firearm deaths.** (*Baseline: 6.7/100,000 in 2002; Target: 4.1/100,000)*.

Recommended Action

DMHMRSAS and State Police should:

- Identify geographical areas and other population groups with high rates of firearm deaths implicated in suicides and homicides.
- In areas with high firearm death rates, educate the public about local firearm fatality statistics and the safe storage and handling of firearms.
- Train health professionals and other gatekeepers about firearm fatality statistics and the safe storage and handling of firearms.
- Train health professionals and other providers about the importance of discussing the safe storage and handling of firearms and other lethal means with family members or close contacts of individuals who are in crisis or have mental disorders, substance abuse problems, or suicidal thoughts.

Notes

The American Academy of Pediatrics states that "during routine evaluations, pediatricians need to ask whether firearms are kept in the home and discuss with parents

the risks of firearms as specifically related to adolescent suicide. Specifically for adolescents at risk of suicide, parents should be advised to remove guns and ammunition from the house.[hh]"

***Goal 8: Implement training for recognition of at-risk behavior and delivery of effective treatment***

Objective 8.1: **By 2008, increase the number of trained gatekeepers.**
Recommended Action

- Members of the Steering Committee should meet with leaders of statewide professional organizations,[i] state agency/organization personnel,[ii] and regional organizations[iii] representing gatekeepers for populations at high risk for suicide, to:
    - Explain the problem of suicide, areas and populations at high risk, risk and protective factors, and what can be done to prevent them.
    - Promote the availability of suicide prevention training (such as currently offered QPR and ASIST training) or identify other suitable training.
    - Explore the possibility of obtaining continuing education credits for such training or requiring such training for recertification, and
    - Explore the possibility of co-sponsorship of and charges for training.
- Meet with regional/local coalition leaders to provide the tools for and request their promotion of suicide prevention training to local leaders, including business, educational, religious, media, human services, foundation, and civic leaders.

Objective 8.2**: Increase the proportion of counties in which education programs are available to family members and others in close relationships with those at risk for suicide.**
Recommended Action
The Department of Mental Health, Mental Retardation and Substance Abuse Services should work to:

- Assess the availability of family education programs, in collaboration with the Virginia chapter of the National Alliance for the Mentally Ill and the Community Services Boards.
- Promote establishment and utilization of family education programs through the regional/local coalitions, community service boards, local foundations, civic groups, and major employers.

[i] Including professional organizations for physicians, dentists, providers of nursing care, physician assistants, emergency personnel, psychologists, social services personnel, clinical social workers, counselors, clergy, educational faculty and staff, adult and juvenile correctional workers, divorce and family law and criminal defense attorneys, bartenders, hairdressers and barbers.
[ii] Including mental health, Comprehensive Services Act, health department, social services, unemployment services, senior centers, and corrections personnel.
[iii] Including Area Agencies on Aging and Area Health Education Centers.

***Goal 9: Develop and promote effective clinical and professional practices***

Objective 9.1: **Increase the proportion of primary care practices, with clinical practices that have systems to assure accurate diagnosis, effective treatment, and follow-up for depression, substance misuse, and other mental health conditions.**

Recommended Action

DMHMRSAS should work with Virginia primary care provider associations (medical, osteopathy, nurse and other allied health professionals) and graduate schools, as appropriate, to:

- Promote the screening or assessment, with effective tools, for depression, substance abuse, and other mental health conditions as recommended by the U.S. Preventive Services Task Force (USPSTF) and the American Academy of Pediatrics (AAP).
- Promote the establishment of linkages and practices to assure proper follow-up of patients following screening for depression and substance abuse.
- Incorporate depression, substance abuse, and other mental health assessment, prevention and referral as part of graduate training**.**

Notes

The National Strategy has several objectives to increase the screening for depression, substance abuse, and suicide risk by primary care providers. However, the USPSTF issued a report (May 2004) that states the evidence is insufficient to recommend screening office patients for risk of committing suicide[ii]. The USPSTF recommends screening adults for depression in clinical practices that have systems in place to assure accurate diagnosis, effective treatment, and followup.[jj] The USPSTF recommends screening and behavioral counseling interventions to reduce alcohol misuse by adults, including pregnant women, in primary care settings. Such screening practices are not recommended for adolescents.[kk] As for drug abuse, the USPSTF takes a neutral stance on routine screening but does state that clinicians should be on the alert for signs and symptoms of drug abuse and ask about their use within the context of a trusting, nonjudgemental and confidential relationship.[ll] The AAP recommends that: 1) Pediatricians screen adolescents for a history of sexual assault and potential sequelae[mm]; 2) Pediatricians ask questions about depression, suicidal thoughts, and other risk factors associated with suicide in routine history-taking thoughout adolescence[nn]; 3) Pediatricians discuss the hazards of alcohol and other drug use with their patients as a routine part of risk behavior assessment[oo].

Objective 9.2: **By 2008, increase the proportion of specialty mental health and substance abuse treatment centers that have policies, procedures, and evaluation programs designed to effectively assess suicide risk, intervene to reduce suicidal behaviors among their patients, and provide follow-up to prevent further suicidal behaviors.**

Recommended Action

The Licensing Office of the Department of Mental Health, Mental Retardation and Substance Abuse Services should:

- Assure that licensing regulations require written policies and procedures to effectively assess suicide risk, intervene to reduce suicidal behaviors among their patients, and provide follow-up to prevent further suicidal behaviors.

- Assess the proportion of such specialty centers that have these policies and procedures.

Objective 9.3: **By 2008, increase the proportion of patients with mood disorders who complete a course of treatment or continue maintenance treatment as recommended.**
Recommended Action
The Department of Mental Health, Mental Retardation and Substance Abuse Services should work with local/regional coalitions, especially those in areas with high suicide rates, to:

- Assess the barriers patients and providers face in assuring completion or regular maintenance of treatment.
- Reduce these barriers through increased funding, training, or policy changes.

Objective 9.4: **By 2008, increase the proportion of patients treated for self-destructive behavior in hospital emergency departments that pursue the proposed mental health follow-up plan.**
Recommended Action
The Department of Mental Health, Mental Retardation and Substance Abuse Services should:

- Promote the application of effective follow-up policies and practices among hospital emergency departments, particularly in areas with high suicide rates.

Objective 9.5: **By 2008, a greater percentage of institutional settings apply guidelines for aftercare treatment programs for individuals exhibiting suicidal behavior.**
Recommended Action
The Department of Mental Health, Mental Retardation and Substance Abuse Services should:

- Meet with leaders of institutional settings to promote application of guidelines, once national guidelines have been developed.
- Monitor the application of such guidelines.

***Goal 10: Increase access to and community linkages with mental health and substance abuse services***

Objective 10.1: **By 2010, increase the proportion of the population with expanded benefits for mental health and substance abuse services.**
Recommended Action
The Department of Mental Health, Mental Retardation and Substance Abuse Services should:

- Work with insurance companies and the legislature to expand benefits for services to improve mental health.
- Work with the Department of Medical Assistance Services to explore the expansion of Medicaid eligibility for mental health services.

Objective 10.2: **By 2010, expand and improve local mental health services, especially in areas with high suicide rates.**
Recommended Action
The Department of Mental Health, Mental Retardation and Substance Abuse Services should continue to expand and improve local mental health services, in accordance with the Comprehensive State Plan, 2004 – 2010[pp] and in response to the President's New Freedom Commission on Mental Health[qq], with special emphasis on areas with high suicide rates.

Objective 10.3: **Improve integration and coordination among organizations/agencies including physical health, mental health, and spiritual.**
Recommended Action
DMHMRSAS and Steering Committee should:

- Conduct a study to identify policies at the state level that prevent integration and coordination of services at the local level and recommend changes or develop new policies to promote such integration and coordination. Such policy analyses and changes should be promoted by local coalitions as well.
- Promote integration of suicide prevention activities into existing programs targeting populations at high risk for suicide. Examples include:
  - Incorporate mental health and suicide risk assessment and referral into health and/or social services outreach and home-visiting programs for high-risk populations.
  - Incorporate screening for depression into substance abuse prevention and treatment programs.

Local/regional coalitions should:

- Convene community leaders to identify and implement collaborative opportunities for more effective service.

***Goal 11: Improve reporting and portrayals of suicidal behavior, mental illness and substance abuse in the entertainment and news media***

Objective 11.1**: Identify the extent to which there is inappropriate portrayal of or reporting on suicides, suicidal attempts, and mental illness and inform the media of the problem.**
Recommended Action
DMHMRSAS should:

- Examine the News Clipping Service results for indications of the extent of inappropriate reporting on or portrayal of suicides, suicidal attempts, and mental illness.
- In collaboration with local/regional coalitions, meet with representatives of the radio, TV, news media and journalism schools, in each of the major media markets, to inform them on suicide risk in their geographical area, risk factors, solutions, and discuss the use of the American Foundation for Suicide

Prevention's guidelines: Reporting on Suicide: Recommendations for the Media[i].

Notes

While the Reporting on Suicide: Recommendations for the Media focuses on news reporting, there are apparently no similar consensus recommendations formulated for the entertainment media.

[i] Developed in collaboration with the Office of the Surgeon General, the Centers for Disease Control and Prevention, the National Institute of Mental Health, Substance Abuse and Mental Health Services Administration, the World Health Organization, the National Swedish Centre for Suicide Research, and the New Zealand Youth Suicide Prevention Strategy.

## References

**Executive Summary**

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